

REMARKS

This application has been amended so as to place it in condition for allowance at the time of the next Official Action.

The Official Action rejects claims 1-11 under 35 USC §103(a) as being unpatentable over KONNO et al. 5,607,764 in view of applicants' admitted prior art. Reconsideration and withdrawal of this rejection are respectfully requested for the following reasons:

The present invention relates to an optical diffusion element comprising a layer of polymer particles. As disclosed in the present specification, and as explicitly recited in each of independent claims 1 and 6, the polymer particles are "self-fused together".

This self-fused characteristic of the layer of polymer particles serves to distinguish the present invention from the optical diffusion elements of the known prior art. As described in the first full paragraph on page 3 of the present specification as originally filed, describing the prior art:

However, in producing the optical diffusion element, the particles are dispersed in a binder and fused together through the binder. As a result, it is difficult to increase an in-plane number of the particles, so that the optical diffusion element is hard to have a sufficient optical diffusion effect and to make a film thinner.

In the paragraph spanning pages 16 and 17 of the present specification, applicants describe the "self-fusion"

characteristic of the present invention, in contrast to the binder-based approach taken by the prior art:

The term "self-fusion" as used herein shall mean and refer to the state that polymer particles are interfused together in a form of multiple layers [sic: layers]. Accordingly, in the case where a water soluble polymer is used as a dispersion stabilizing agent in the polymerization process, the term "self-fusion" covers the state that polymers forming shells of polymer particles are heated and interfused together. The optical diffusion layer that is formed by the self-fusion of polymer particles does not cause a light transmission loss due to light scattering and depolarization that are common with optical diffusion layers in which there is produced an interface between outer shells of polymer particles and a binder for interfusing the polymer particles.

Additionally, as stated in the paragraph spanning pages 17 and 18:

Because the self-interfusion of the polymer particles makes the optical diffusion element to be made in the form of multiple layers *without using a binder*, the optical diffusion element can comprise optical diffusion layers having a high distribution density of the polymer particles.

As is evident from this and other language of the present application, the known prior art uses a binder in connection with the polymer particles, unlike the present invention. Furthermore, the applied KONNO et al. reference is merely a member of the prior art including such binder. As noted in the abstract of KONNE et al., the subject of such reference is an "improved optical diffuser comprising a transparent support and an optical diffusing layer which is coated on one surface of the support *and comprises an organic polymer binder.*" (emphasis

added). Further, the binder is a critical element of the KONNO et al. device, as specific reference is made to a difference between the refractive indices of the binder and the particles (see, e.g., the paragraph spanning columns 1 and 2).

Applicants note that each of the present independent claims recites that the particles are self-fused together. Furthermore, each of the independent claims now additionally recites that the layer of polymer particles is free of a binder, which feature is readily disclosed in the application as originally filed, as evidenced by at least the passages quoted above.

As the applied reference fails to teach or suggest that which is claimed, and further specifically teaches away from the invention as claimed in light of the particular reliance on not only the presence of a binder, but particular optical characteristics of the binder, applicants respectfully suggest that the applied combination of references cannot reasonably be construed as rendering obvious the invention as claimed.

The Official Action rejects claims 2 and 7 under 35 USC §103(a) as being unpatentable over KONNO et al. in view of applicants' admitted prior art, and further in view of WADA et al. 5,343,317. Reconsideration and withdrawal of this rejection are respectfully requested for the following reasons:

At the outset, applicants note that the applied WADA et al. reference does not concern itself with a diffusion element. Rather, the element that it discloses as novel, and that element characterized as meeting the recited glass transition temperature, is an optically compensating film. By way of example, the optical compensator of the arrangement illustrated in Figure 1 is element 109. Such optical compensator is arranged between the liquid crystal cell and the lower polarizer. If element 109 acted as a diffuser, it would render the overall device unusable, as it would diffuse the output of the LCD device.

Therefore, while such reference describes a device having a component that includes a polymer particle having the recited glass transition temperature, it is utterly inapplicable to the present invention, as it is provided in conjunction with a completely dissimilar component of the overall device.

While it is believed that the recitation of an optical diffusion element in each of claims 1 and 6 is sufficient to render the applied WADA et al. reference inapplicable, please note that applicants have added new claims 12 and 13, depending from claims 2 and 7, respectively, that clarify the operation of the diffusion element.

In addition to the amendments described above, applicants have added new dependent claims 12-20. Each of these

claims recites additional features that are neither disclosed, taught, nor suggested by the prior art.


Entry of the above amendments is earnestly solicited. Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Should there be any matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. §1.16 or under 37 C.F.R. §1.17.

Respectfully submitted,

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